

FORT SMITH FIRE DEPARTMENT

200 NORTH FIFTH STREET
FORT SMITH, ARKANSAS 72901
479-783-4052



Mike Richards
Fire Chief

Memo

To: Ray Gosack, City Administrator
From: Mike Richards, Fire Chief
Date: November 4, 2011
Re: Fire Service Improvement Plan

One of the Fort Smith Board of Directors goals identified as a priority earlier this year during the strategic planning session was to address fire service improvements for the citizens of Fort Smith.

The Board specifically enumerated these steps:

1. Communication with the public – involve insurance agents
 - a. Scott Clark with Brown Hiller Clark, Gene Nelson with Nelson Insurance, and Craig Gigerich with State Farm Insurance will be assisting us in providing public information on the importance and meaning of fire insurance ratings.
2. Prepare a conceptual plan and cost estimates for Fire Station 11
 - a. The needs assessment, schematic design, master site plan, and cost estimates have been completed. The design and plans will be shown at the Study Session.
3. Consider options for financing construction, equipping, and operations
 - a. Currently being discussed. A sales tax election for the capital items is anticipated for March, 2012.

The improvements are necessary to provide for the safety of the public, keep or lower the City's current Insurance Service Office (ISO) Class 2 fire rating – thereby keeping property insurance rates as low as possible, enhancing economic development in the Chaffee Crossing area by providing adequate emergency services, and to support new growth in the eastern/southern areas of the City. These issues were addressed in the 2011 Fire Department Improvement Plan presented to the Board at the June 14, 2011 Study Session.

The 2011 Fire Department Improvement Plan included several elements that must be implemented together to maximize the desired results at the lowest cost possible. Implementing only parts of the plan will increase the overall cost of the improvements over a period of time and delay the benefits. The fire service improvements include the construction and staffing of a new fire station at Chaffee Crossing, replacing older fire apparatus and relocating some of our

ladder trucks to maximize ISO credit, and update our current fire stations to improve firefighter health and safety as well as lower operation and maintenance costs.

Fire Station 11 at Chaffee Crossing

The needs assessment, schematic design, and master site plan for the Chaffee Crossing fire station have been completed by Guest Reddick Architects of Fort Smith, Arkansas and Stewart Cooper Newell (SCN) Architects in Gastonia, North Carolina. The new fire station concept is an operations-based design to fit the specific needs of the Fort Smith Fire Department (FSFD) for both the near and long term. The building was designed with gender neutral sleeping rooms and gender neutral bathrooms/showers. This is the standard design model for all new and modern fire stations now being constructed throughout the United States. The building will also be compliant with the Americans with Disabilities Act (ADA).

The main components of the fire station will be:

- Day room
- Training room
- Kitchen
- Eight (8) sleep rooms
- Four (4) employee bathroom/showers
- One (1) ADA compliant public restroom
- Exercise room
- Office
- Three (3) bay engine room
- Storage and functional space

The building has been designed to be an energy efficient and low maintenance facility. This will provide for long term sustainability and maximize cost savings to operate the facility for many years.

The exterior of the fire station was designed to capture and preserve the history of Fort Chaffee and the Chaffee Crossing area. It was the fire department's goal for the new fire station to have both the look representing the history of the area and maintain a modern and sustainable design.

The City's Engineering department has worked very closely with the fire department by helping with the planning for access to Massard Road for our fire apparatus and developing a street on the west side of the property for public access.

The projected total cost of the fire station is \$3,000,000.00. It will take approximately 13 – 18 months to finish the construction documents and construct the building once the funding is secured and the contract awarded.

Fire Apparatus Replacement and Relocation Plan

The FSFD fire apparatus replacement and relocation plan was based on the following criteria:

- Current age and condition of our fleet
- Future considerations to meet demand and growth within the City
- Fire Station completion at Chaffee Crossing by 2014
- Insurance Service Office's (ISO) 2011 Survey results
- Cost effectiveness and long-term budget considerations

The plan includes purchasing three (3) new pumpers and three (3) new ladder trucks. This plan is also part of the 2011 Fire Department Improvement Plan that has been developed to meet the current and future requirements of ISO. Implementing both plans together as outlined in Category 4 – Credit for Ladder-Service Companies of the 2011 Fire Department Improvement Plan - could save the City approximately \$2.0 million for additional apparatus and \$270,000.00 per year in personnel cost.

The three (3) pumpers would replace the three (3) units that we are currently behind in our replacement schedule. It has been our normal practice for the last ten years to replace at least one (1) pumper per year to minimize the impact on the City's general fund. However, we have only been able to replace one (1) pumper in the last four years due to budget constraints.

The three (3) new ladder trucks would serve two separate needs. The first need is to replace our two (2) oldest ladder trucks (Ladder 1 and Ladder 10). Both of these trucks are approaching twenty (20) years old and the end of their effective life cycle. The second need is to add a 75' Quint (a Quint is a pumper/ladder combination) to satisfy the current and future ISO requirement for the number of ladder trucks required for the City. The pumper that the Quint would replace is a 2005 year model, which would be reassigned to the new Chaffee Crossing fire station. This would reduce the initial cost of opening the new fire station by approximately \$500,000.00.

Existing Fire Station Repairs and Improvements

Most of our current fire stations are approaching 40 years old and in need of significant repairs. Each year we have tried to include enough funding in the fire department's annual budget to keep up with necessary building repairs and renovations. However, due to budget cuts over the last few years, we have not been able to keep up with the repairs necessary to improve the health and safety of our firefighters and to remain operational during extended periods of power outages. Eight of ten fire stations (1 through 6 & 8 through 9) have never had any upgrades or major remodeling since they were built in the 1970's. Fire Station 7 was originally built in 1958, had an addition to the engine room built in the mid-1970s, and new living quarters built in 2000. Fire Station 10 was constructed in 1996.

There are many serious issues that need to be addressed at each of the fire stations to improve the health and safety of our firefighters and to remain operational during periods of power outages.

The health and safety issues include replacing floors, cabinets and countertops, remodeling bathrooms and showers, and replacing the roofs on five (5) fire stations. It is imperative we replace these items in order to maintain a clean and sanitary environment. Our firefighters are exposed to many types of contaminants and blood-borne pathogens each day. It is extremely important to have an interior living area that is easy to keep clean and sanitary. Making these improvements will also lower our daily cleaning/operational costs by using less cleaning agents and chemicals.

It is also important to add security measures to our fire stations in the form of a controlled access system. All of our fire stations, including the fire administrative offices, are subject to uncontrolled entry by anyone at almost any time. This is a serious safety issue and must be addressed.

Finally, we have a critical issue with our fire station emergency generators. Nine out of ten of our generators are so old (installed when the buildings were built) that replacement parts are not available and the units may not be serviceable in the event they break down. Our fire stations must have electrical power at all times to remain operational. We have consulted with generator and electrical specialists and determined our only option would be to replace each one with a modern natural gas powered emergency generator.

Estimated Cost to Implement Fire Service Improvements

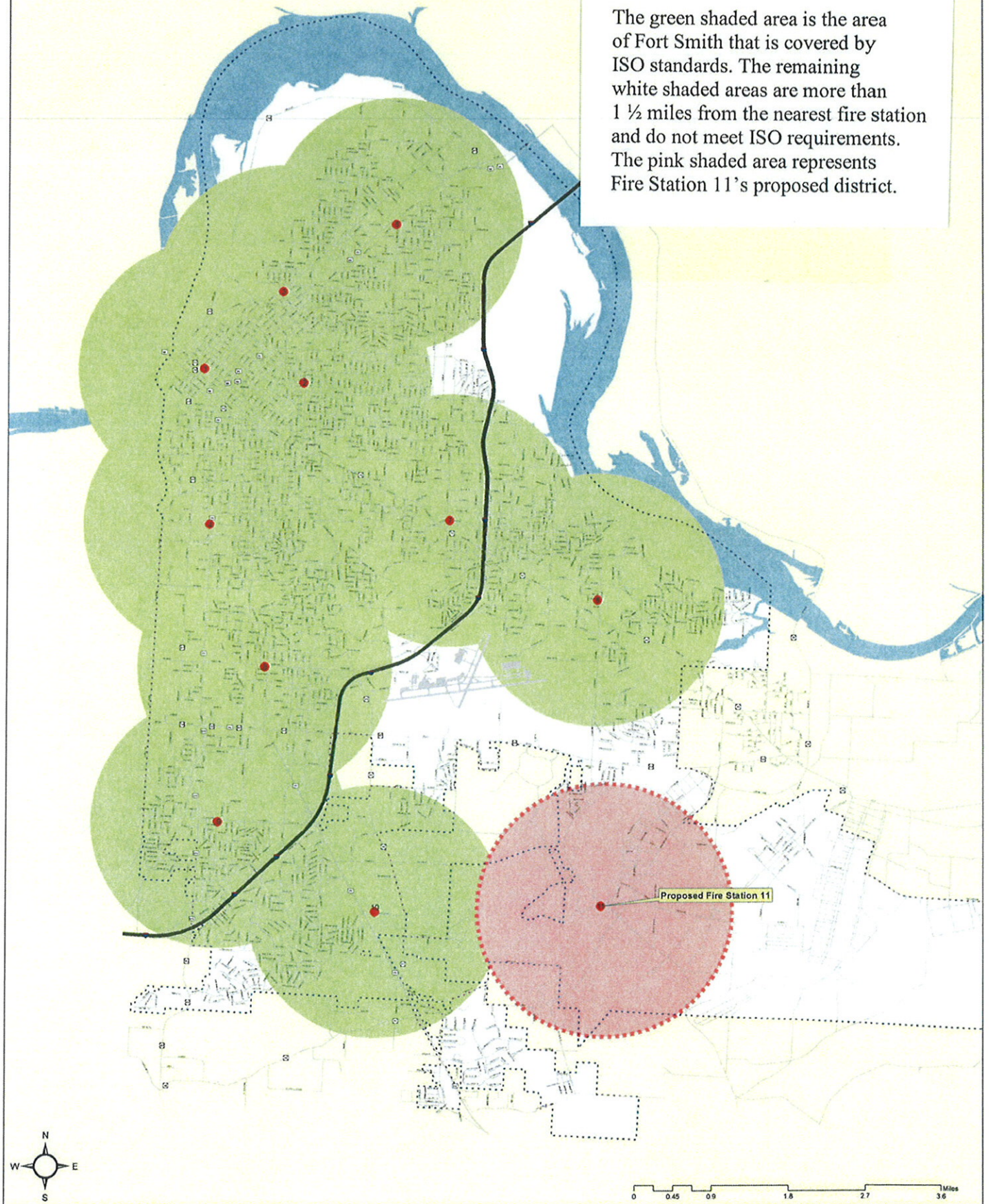
Fire Station 11 -	\$3,000,000.00
Six new fire apparatus (three pumpers and three ladder trucks) -	\$4,305,000.00
Existing Fire Station Operational Upgrades -	<u>\$1,246,100.00</u>
Total Cost of Fire Service Improvements -	<u>\$8,551,100.00</u>

These improvements will allow the FSFD to continue providing responsive emergency services, preserve our ISO insurance rating which keeps property insurance rates lower, and provide a safer, modern work environment for our firefighters.

[13 attachments]

Current Pumper Districts

The green shaded area is the area of Fort Smith that is covered by ISO standards. The remaining white shaded areas are more than 1 ½ miles from the nearest fire station and do not meet ISO requirements. The pink shaded area represents Fire Station 11's proposed district.



ISO Ladder Company Distribution Study

Community Name: Fort Smith
County: Sebastian
State: AR

Date: 9/2/10
GIS Analyst: Steven Hardy

INTERNAL USE ONLY Field Representative Output			
Number of Existing Ladder Companies:		Enter # of Lad:	3
Number of Applicable AA Locations:		Enter # of AA:	0
a)	Number of Existing Ladder/Service Company & Applicable AA Locations:		3 540 (1)
b)	Number of Existing Ladder/Service Company Locations Not Needed:		0
c)	Number of Additional Needed Ladder/Service Company Locations:		2 540 (2)
d)	Number of Needed Ladder/Service Companies Needed for Distribution:		5 540 (3)
e)	Total number of protected road mile segments within 5.0 miles of recognized stations & all AA stations:		558.76 550 (1)
f)	Total number of protected road mile segments within 2.5 miles of ladder company stations & all AA ladder stations:		487.74
g)	Total number of protected road mile segments beyond 2.5 miles of Ladder/Service company stations:		71.02 550 (2)

Number of Streets Independently Covered for each Ladder Service Area Response Area Study			Automatic Aid Coverage		
FS	Protected Roadbase (meters)	Independently Covered Protected Roadbase (miles)	FS	Protected Roadbase (meters)	Independently Covered Protected Roadbase (miles)
FS 1	278163.37	171.60			0.00
FS 7	187053.89	115.23			0.00
FS 10	92682.16	57.59			0.00
		0.00			0.00
		345.41			0.00

SECTION II

SRD Calculations

Total protected road mile segments in all service areas / # of Fire Stations: 115.14

Total protected road mile segments in all service areas / # of Fire Stations * 15%: 17.27

List of Existing Not Needed Ladder/Service Company Locations (SRD less than 15% or less than 5 miles or less than 14 hydrants)

Total protected road mile segments in all service areas / # of Fire Stations: SRD: 115.14

(exclude any Fire Stations that do not meet the 15% requirement)

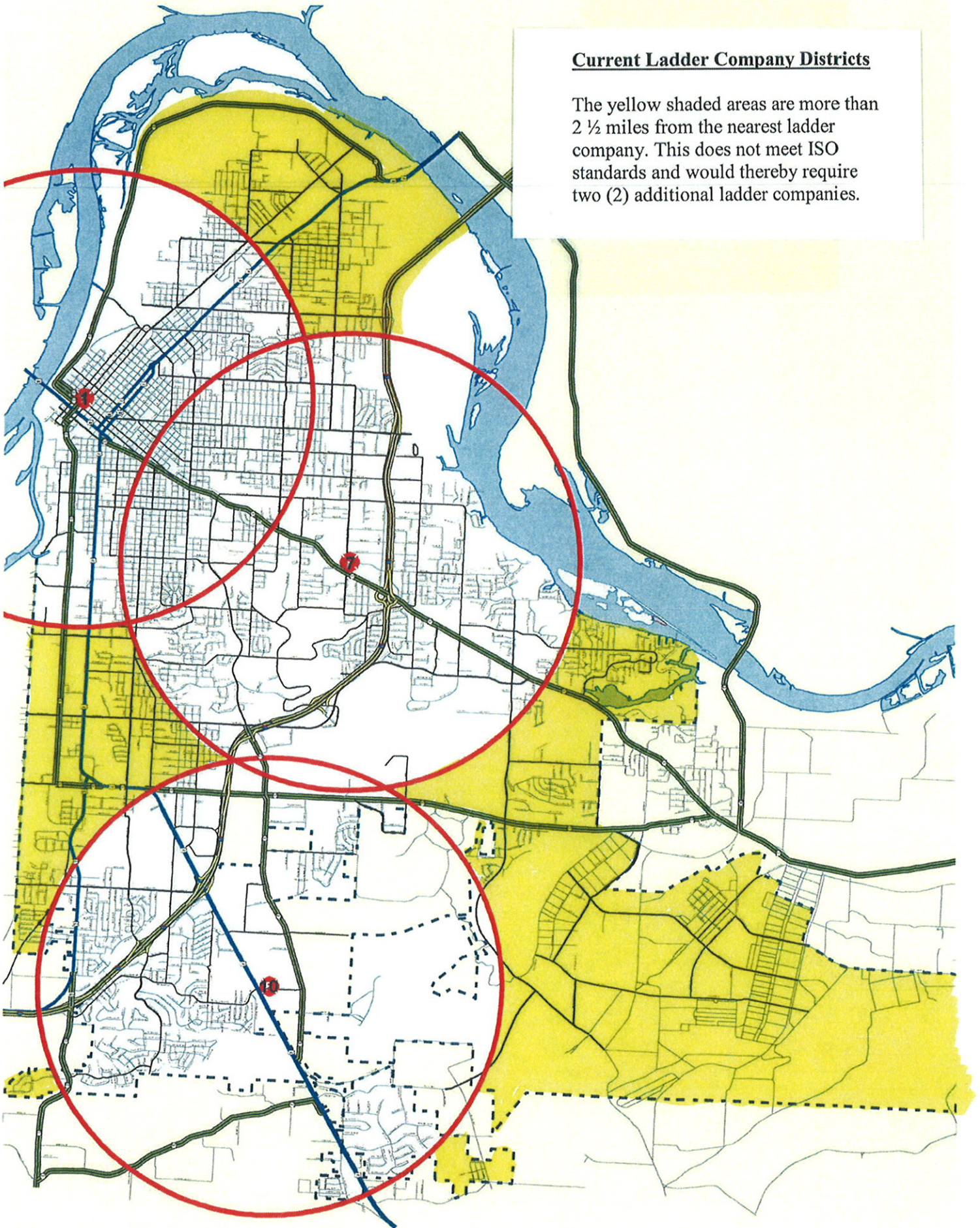
Standard Response District (SRD) * 60%: 69.07

List of Additional Existing Needed Ladder/Service Company Locations (SRD equal to or greater than 50% figure)

	Protected Roadbase (meters)	Protected Roadbase (miles)	Location
Prop Lad 1	125660.38	78.70	FS 8
Prop Lad 2	102395.03	63.63	FS 5

Current Ladder Company Districts

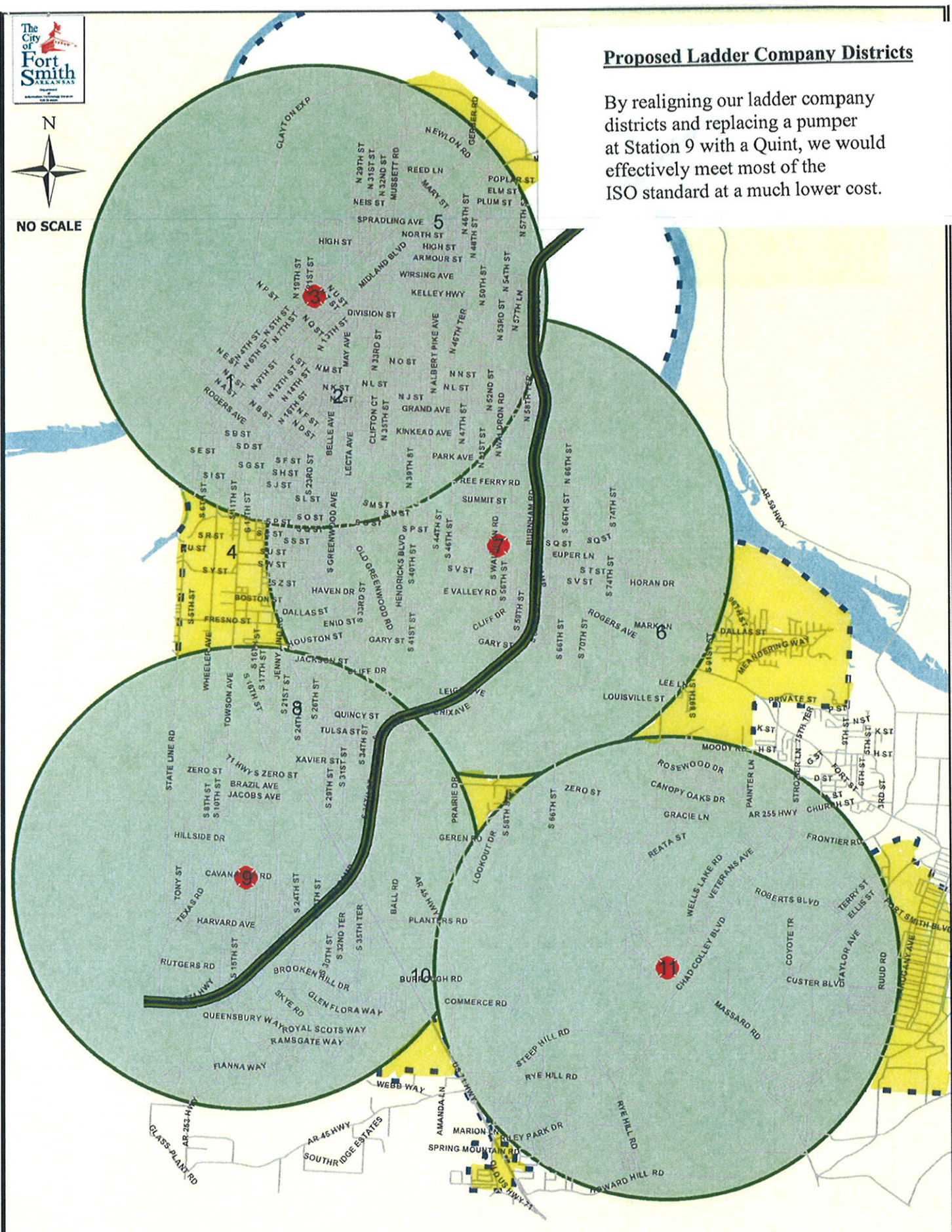
The yellow shaded areas are more than 2 ½ miles from the nearest ladder company. This does not meet ISO standards and would thereby require two (2) additional ladder companies.





Proposed Ladder Company Districts

By realigning our ladder company districts and replacing a pumper at Station 9 with a Quint, we would effectively meet most of the ISO standard at a much lower cost.



Fire Station Improvements

Type of Work	Number of Locations	Cost
Emergency Generator Replacement	10	\$465,000.00
Floor Replacement/Repair	10	\$102,100.00
Roof Replacement	5	\$260,000.00
Kitchen/Bath/Shower Repair & Remodel	10	\$149,500.00
Controlled Access/Security System	11	\$151,000.00
Remodel Fire Administrative Office Front Entrance for Security Purposes, add Controlled Access Security System, replace/repair flooring, remodel bathrooms	1	\$58,500.00
Replace building façade	1	\$60,000.00
Total		\$1,246,100.00

Fire Station Improvements

Fire Administration - Constructed in 1973

Remodel Administrative Office Front Entrance for Security Purposes	\$25,000.00	\$25,000.00
Floors(Remove VCT Tile, Polish & Stain Concrete) in Front and Hallway	\$2,500.00	
Replace remaining floor covering	\$6,000.00	
Remodel Bathroom	\$10,000.00	
Security System	\$15,000.00	
Sub total		\$33,500.00

Station One - Constructed in 1973

Floors(Remove VCT Tile, Polish & Stain Concrete)	\$22,500.00	
Kitchen: Countertops (Stainless Steel)	\$5,000.00	
Bath Tile Floors and Walls	\$5,000.00	
Bathroom Fixtures/Partitions(1500 per)	\$10,000.00	
Shower Remodel	\$10,000.00	
Emergency Generator	\$105,000.00	
Replace façade around building	\$60,000.00	
Security System	\$25,000.00	
Sub total		\$242,500.00

Station Two - Constructed in 1977

Entire Roof	\$50,000.00	
Floors(Remove VCT Tile, Polish & Stain Concrete)	\$7,650.00	
Kitchen Cabinets w/countertops	\$7,500.00	
Bathroom Fixtures/Partitions	\$9,500.00	
Emergency Generator	\$40,000.00	
Security System	\$14,000.00	
Sub total		\$128,650.00

Station Three - Constructed in 1973

Floors(Remove VCT Tile, Polish & Stain Concrete)	\$9,450.00	
Kitchen Cabinets w/countertops	\$7,500.00	
Bathroom Fixtures/Partitions	\$9,500.00	
Emergency Generator	\$40,000.00	
Security System	\$14,000.00	
Sub total		\$80,450.00

Station Four - Constructed in 1973

Kitchen Cabinets w/countertops	\$7,500.00	
Emergency Generator	\$40,000.00	
Security System	\$14,000.00	
Sub total		\$61,500.00

Fire Station Improvements

Station Five - Constructed in 1973

Roof	\$65,000.00	
Floors(Remove VCT Tile, Polish & Stain Concrete)	\$9,450.00	
Kitchen Cabinets w/countertops	\$7,500.00	
Bathroom Fixtures/Partitions	\$9,500.00	
Emergency Generator	\$40,000.00	
Security System	\$14,000.00	
Sub total		\$145,450.00

Station Six - Constructed in 1977

Floors(Remove VCT Tile, Polish & Stain Concrete)	\$7,650.00	
Kitchen Cabinets w/countertops	\$7,500.00	
Bathroom Fixtures/Partitions	\$9,500.00	
Emergency Generator	\$40,000.00	
Security System	\$14,000.00	
Sub total		\$78,650.00

Station Seven - Constructed in 1958; Remodeled in 1977 and 2000

High Roof (Engine Bay)	\$15,000.00	
Kitchen: Countertops (Stainless Steel)	\$5,000.00	
Floors(Remove VCT Tile, Polish & Stain Concrete)	\$13,250.00	
Emergency Generator	\$40,000.00	
Security System	\$14,000.00	
Sub total		\$87,250.00

Station Eight - Constructed in 1973

Entire Roof	\$65,000.00	
Floors(Remove VCT Tile, Polish & Stain Concrete)	\$9,450.00	
Kitchen Cabinets w/countertops	\$7,500.00	
Bathroom Fixtures/Partitions	\$9,500.00	
Emergency Generator	\$40,000.00	
Security System	\$14,000.00	
Sub total		\$145,450.00

Station Nine - Constructed in 1973

Entire Roof	\$65,000.00	
Floors(Remove VCT Tile, Polish & Stain Concrete)	\$9,450.00	
Kitchen Cabinets w/countertops	\$7,500.00	
Bathroom Fixtures/Partitions	\$9,500.00	
Emergency Generator	\$40,000.00	
Security System	\$14,000.00	
Sub total		\$145,450.00

Fire Station Improvements

Station Ten - Constructed in 1996

Floors(Remove VCT Tile, Polish & Stain Concrete)	\$13,250.00	
Kitchen: Countertops (Stainless Steel)	\$5,000.00	
Emergency Generator	\$40,000.00	
Security System	\$14,000.00	
Sub total		\$72,250.00

\$1,246,100.00







